

1     Claims

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3             1.       A plastic glazing panel installation comprising:

4             a generally rectangular glazing panel of transparent plastic having top, bottom and  
5     side edges;

6             a retainer frame defined by sections of a perimeter channel forming a  
7     corresponding generally rectangular glazing opening for receiving the edges of said panel, said  
8     sections of said perimeter channel each having a lip together defining an opening of smaller size  
9     than said glazing opening, so as to retain said panel in said perimeter channel;

10            said glazing panel being sufficiently thin and flexible to be able to be easily  
11     bowed so as to allow opposite edges of said glazing panel to be drawn together sufficiently to  
12     be able to be passed by the lips of opposite sections of said perimeter channel and allow another  
13     edge of said glazing panel to be inserted in a receiving channel section extending along said  
14     glazing opening, said receiving channel section being deeper than an opposite channel section so  
15     that upon insertion of said another edge of said glazing panel and movement towards the bottom  
16     of said receiving channel section, an edge of said glazing panel opposite said another edge clears  
17     said lip of said opposite channel section which is shallower than said receiving channel section to  
18     enable insertion and removal of said glazing panel.

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20            2.       The installation according to claim 1 wherein said receiving channel  
21     section has a resiliently compressible element disposed therein allowing sufficient movement  
22     upon pushing of another edge of said glazing panel thereagainst so that said glazing panel edge

1 opposite said another glazing panel edge clears the lip of said opposite channel section allowing  
2 removal of said glazing panel, but thereafter upon release causes said glazing panel to be  
3 repositioned to locate said another edge of said glazing panel at an intermediate depth in said  
4 receiving channel section.

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6 3. The installation according to claim 2 wherein said compressible element  
7 comprises a bowed leaf spring disposed in the bottom of said receiving channel section so as to  
8 be compressible by said glazing panel another edge.

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10 4. The installation according to claim 2 wherein said compressible element  
11 comprises an elastomeric piece.

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13 5. The installation according to claim 4 wherein said elastomeric piece  
14 comprises a piece of elastomeric foam.

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16 6. The installation according to claim 4 wherein said elastomeric piece is  
17 formed with an opening in a lower portion allowing compression thereof.

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19 7. The installation according to claim 1 wherein said receiving channel  
20 section is at the bottom of said glazing opening, and further including a positioner element  
21 selectively manipulatable to allow lowering of said glazing panel and thereafter hold said glazing  
22 panel another edge at an intermediate position in said channel section so that said opposite edge

1 of said glazing panel does not clear said lip of said channel section opposite said receiving  
2 channel section.

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4 8. The installation according to claim 7 wherein said positioner element  
5 comprises a compressible element able to be compressed by pushing said glazing panel another  
6 edge thereagainst, and thereafter when said glazing panel is released moving said opposite edge  
7 of said glazing panel into said one channel section opposite said receiving channel section.

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9 9. The installation according to claim 7 wherein said positioner element  
10 comprises a plug in a lip of said bottom channel section, said plug having a stem portion  
11 protruding into said bottom channel section normally holding said glazing panel another edge at  
12 an elevated position therein but removable to allow lowering of said glazing panel another edge  
13 into said bottom channel section.

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15 10. The installation according to claim 1 further including a primary glazing  
16 panel installed in said frame adjacent said glazing panel and aligned therewith but spaced to one  
17 side, said glazing panel being thinner and made of plastic to comprise a sacrificial glazing panel.

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19 11. The installation according to claim 1 further including positioner means  
20 for allowing manipulating movement of said another edge of said glazing panel into said  
21 receiving channel section of to a sufficient extent to allow said opposite edge of said glazing  
22 panel to clear said lip of said opposite channel section but after release of said glazing panel to

1 thereafter position said another edge of said glazing panel at an intermediate position in said  
2 deeper receiving section of said perimeter channel to cause said opposite edge of said glazing  
3 panel to be retained by said lip of said opposite channel section.

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5 12. The installation according to claim 11 wherein said positioner means is  
6 selected from the group consisting of a compressible leaf spring, a piece of compressible foam,  
7 an elastomeric element having an opening allowing ready compression thereof, or a slider-spring  
8 combination.

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10 13. A method of installing and removing a generally rectangular glazing panel  
11 having top, bottom and side edges corresponding in a generally rectangular frame defining a  
12 glazing opening, said frame having a perimeter channel having a top, bottom and a pair of side  
13 sections each formed with a lip portion and adapted to receive and retain said glazing panel, said  
14 perimeter channel retaining said glazing panel therein, the method including the steps of:

15 forming a channel on one of said channel sections of said frame to be deeper than  
16 an opposite section;

17 configuring said glazing panel so that it is easily bowed sufficiently to bring  
18 together opposite edges thereof sufficiently so as to be insertable into said glazing opening,  
19 clearing said lip of each of an opposing first set of perimeter channel sections and thereafter  
20 inserting another edge of said glazing panel into another of said channel sections;

21 said another of said channel sections deeper than a channel section opposite  
22 thereto so that said another edge of said panel can be forcibly moved into said another channel

1 section a sufficient distance so that a glazing panel edge opposite said another edge of said  
2 glazing panel clears the lip of said channel section opposite thereto;

3 thereafter positioning said glazing panel in said perimeter channel so as to have  
4 both said another and opposite edges of said glazing panel are retained by said lips of said  
5 channel sections; and

6 removing said glazing panel by forcibly moving said another edge of said glazing  
7 panel into said deeper perimeter channel section sufficiently so that said glazing panel edge  
8 opposite said another edge clears said lip of said opposite channel section, and bowing said  
9 glazing panel to bring said set of opposite glazing panels edges together to enable removal of said  
10 glazing panel from said perimeter frame.

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12 14. The method according to claim 13 wherein said positioning step includes  
13 the step of disposing a compressible locator in said one channel section of said second set of  
14 channel sections which allows said one glazing panel edge of said second set of edges to be  
15 pushed therein but upon release thereof repositioning said glazing panel another edge at an  
16 intermediate depth of said deeper channel section to locate said edge opposite said another edge  
17 so as to be retained by said lip of said channel section opposite said deeper channel section.